1.0 Introduction

Rodeo Creek Gold Inc (RCG), a wholly owned subsidiary of Great Basin Gold Ltd (GBG), proposes to construct and operate the Hollister Underground Mine Project (project). The proposed project would include transition of existing underground exploration activities to a full-scale producing underground gold and silver mine, including the development of new facilities and expanded surface exploration. The proposed project is located in the northern end of the Carlin Trend, within Elko County, Nevada, approximately 47 miles northwest of Elko, 38 miles northeast of Battle Mountain, and 64 miles northeast of Winnemucca, Nevada (**Figure 1-1**). The community of Midas, Nevada, is located approximately 20 miles to the northwest.

RCG submitted an Amendment to the Plan of Operations (PoO) (NVN-076802) for the proposed project in March 2008, to the Bureau of Land Management (BLM) Elko District Office in compliance with 43 Code of Federal Regulations (CFR) Subpart 3809. Revisions to the PoO have since been submitted to the BLM based on BLM comments received on the original PoO and project updates. A final PoO amendment would be submitted to the BLM and available upon request to the BLM. The proposed project would include the following key components:

- Continued and expanded surface and underground exploration activities;
- Transition from underground exploration and bulk sampling activities to full-scale production of gold and silver (underground mining operation);
- Installation of the Hatter production shaft, ramp, or raise, as the geology of the area dictates;
- Continued maintenance of the existing Ivanhoe Access Road and Little Antelope Creek Road;
- Construction of road(s) within the existing mining disturbance areas and to the Hatter production shaft;
- Construction of a new 11.6-mile-long electric power transmission and distribution line (collectively referred to as 'transmission line') and substation, including access routes;
- Mine water management including installation of a National Pollutant Discharge Elimination System (NPDES) permitted outfall for discharge to Little Antelope Creek and surface monitoring and underground wells, as needed;
- Continued waste rock disposal in the existing permitted and lined waste rock storage facility (WRSF), in underground mined-out areas as backfill, and in a new WRSF located on previously disturbed and unreclaimed land in an existing open pit;
- Construction of ancillary support facilities; and
- Continued and increased transport of ore by truck to off-site existing third-party owned mineral processing facilities located on private land at the Esmeralda Mill in Mineral County, Nevada, and/or the Midas Mill in Elko County, Nevada.

The proposed project would utilize all of the existing support facilities at the mine site. The anticipated mine life would be approximately 20 years, followed by an estimated 3 years of site closure and reclamation activities. To the extent possible, reclamation would occur concurrently with mine operations. A detailed description of the proposed project is provided in Section 2.4, Proposed Action.

The proposed project would be located within Township 37 North (T37N), Range 48 East (R48E) and T38N, R48E in Elko County. The proposed project consists of three major components: 1) mine facilities, including water management facilities and mine roads; 2) transmission line; and 3) surface exploration. The majority of the proposed 92 acres of mining and transmission line components'

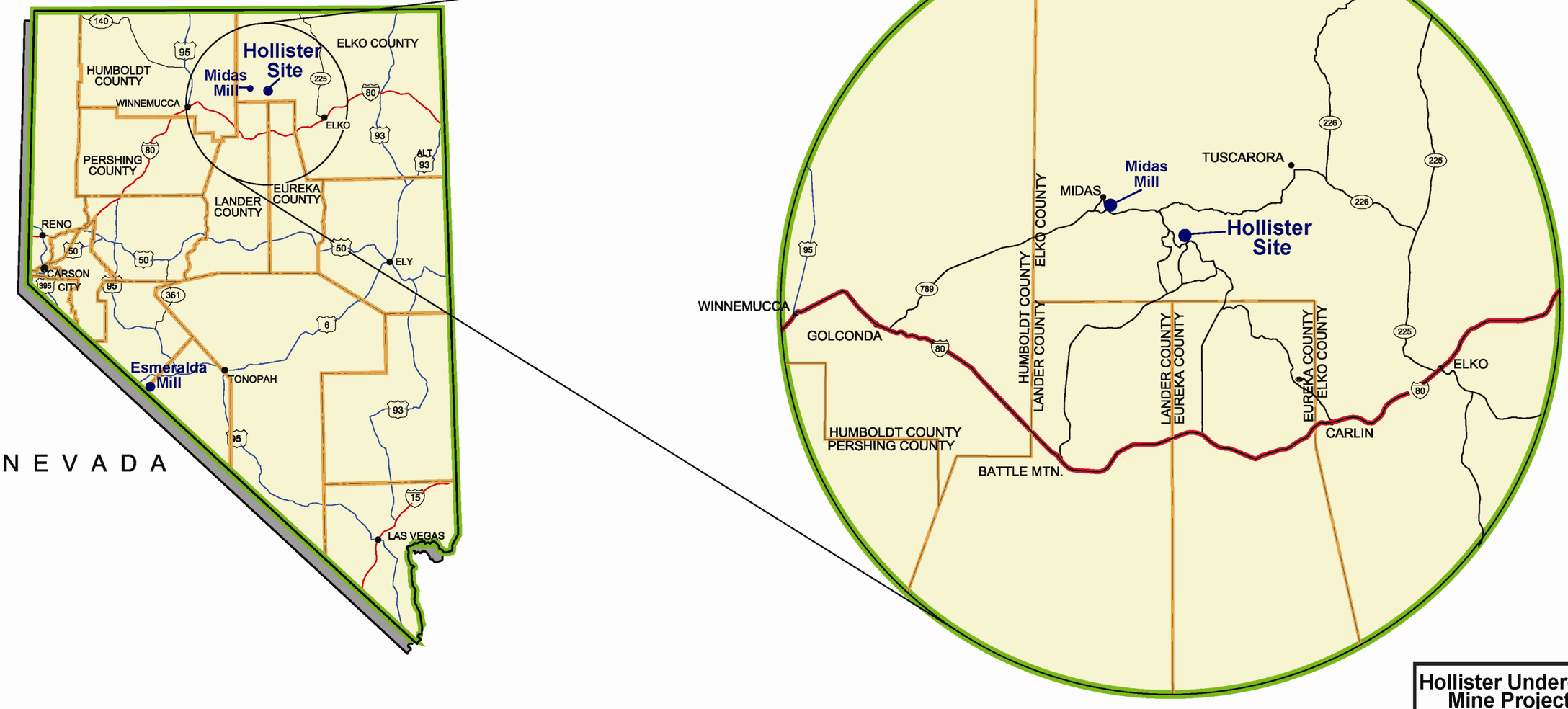
surface disturbance would be located on public lands administered by BLM. A total of 81.2 acres of public land administered by the BLM and 10.8 acres of private land are included within the project disturbance. Surface ownership in the project area is presented in **Figure 1-2**. The 92-acre surface disturbance includes 51.5 acres of new disturbance, 32.4 acres of disturbance on reclaimed lands, and 8.1 acres of previously disturbed but not reclaimed lands. The project area boundary encompasses the proposed surface and underground exploration areas and the mine facilities, including the proposed transmission line.

Also as part of the proposed project, the surface exploration program would be expanded from the existing 25 acres to a total of 50 acres within the project area. The Ivanhoe Exploration PoO (NVN-071014), the Craig Notice (NVN-075619), the Hatter Notice (NVN-071201), and the exploration program would be consolidated into the Hollister Underground Mine PoO (NVN-076802). The total project disturbance, including existing and proposed, would be approximately 222 acres. The project area and its boundary also is presented in **Figure 1-2**. Chapter 2.0 describes the existing operations and Proposed Action.

Approval is required by the BLM pursuant to the Federal Land Policy and Management Act of 1976 (FLPMA), as amended, the Use and Occupancy Under the Mining Laws Regulations (43 CFR Subpart 3715), and the surface management regulations (43 CFR Subpart 3809). The BLM is required by the National Environmental Policy Act of 1969 (NEPA) to review the impacts of the overall proposal, including impacts on both public and private lands. The BLM has determined that an environmental impact statement (EIS) must be prepared to fulfill NEPA requirements. The proposed project PoO (RCG 2012) comprises the Proposed Action for this EIS.

Subpart 3715 of 43 CFR identifies the requirements for “use and occupancy of public lands for the development of locatable mineral deposits by restricting such use or occupancy to that which is reasonably incident.” RCG is required to meet the specific conditions outlined in 43 CFR Subpart 3715.3-2 as the project would affect a total of approximately 222 acres. This surface disturbance consists of approximately 105 acres of existing disturbance and approximately 117 acres of proposed disturbance. This disturbance is on public land managed by the BLM and private land. Specifically, a total of 92 acres are associated with the proposed mining operations and an additional 25 acres are associated with the proposed surface exploration activities. In order to delineate the active mining operations area (mine site), the active mining operations area would be fenced and/or signed. Public access would be restricted and require assistance from RCG or company personnel on the mine site in order to protect the public from potential hazardous situations that can arise at a mine site and to protect the mine facilities and equipment from vandalism or damage from the public. The area within the project boundary that is not occupied by the active mining operations would be open to public access including the exploration area, Ivanhoe Road, and Little Antelope Creek Road. Fences and signs installed on public lands would be approved by the BLM. The Occupancy and Use requirements do not allow individuals to live on-site. A Programmatic Environmental Assessment (EA) for mining claims, mill site use, and occupancy for selected actions was completed by the Nevada State Office of the BLM with a finding of no significant impact (BLM 2000a). The Programmatic EA provides the basic analysis for the proposed use and occupancy of public lands related to locatable minerals. This EIS provides the site specific analysis.

The BLM is the lead agency for preparing the EIS in compliance with NEPA, the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR Parts 1500-1508), the BLM’s NEPA Handbook (H-1790-1), the Bureau-wide Guidelines for Assessing and Documenting Cumulative Impacts (2008a), CEQ’s Considering Cumulative Effects under NEPA (CEQ 1997a), and other applicable guidance. The Nevada Department of Wildlife (NDOW) and Elko County Board of Commissioners served as cooperating agencies for preparation and review of the EIS.

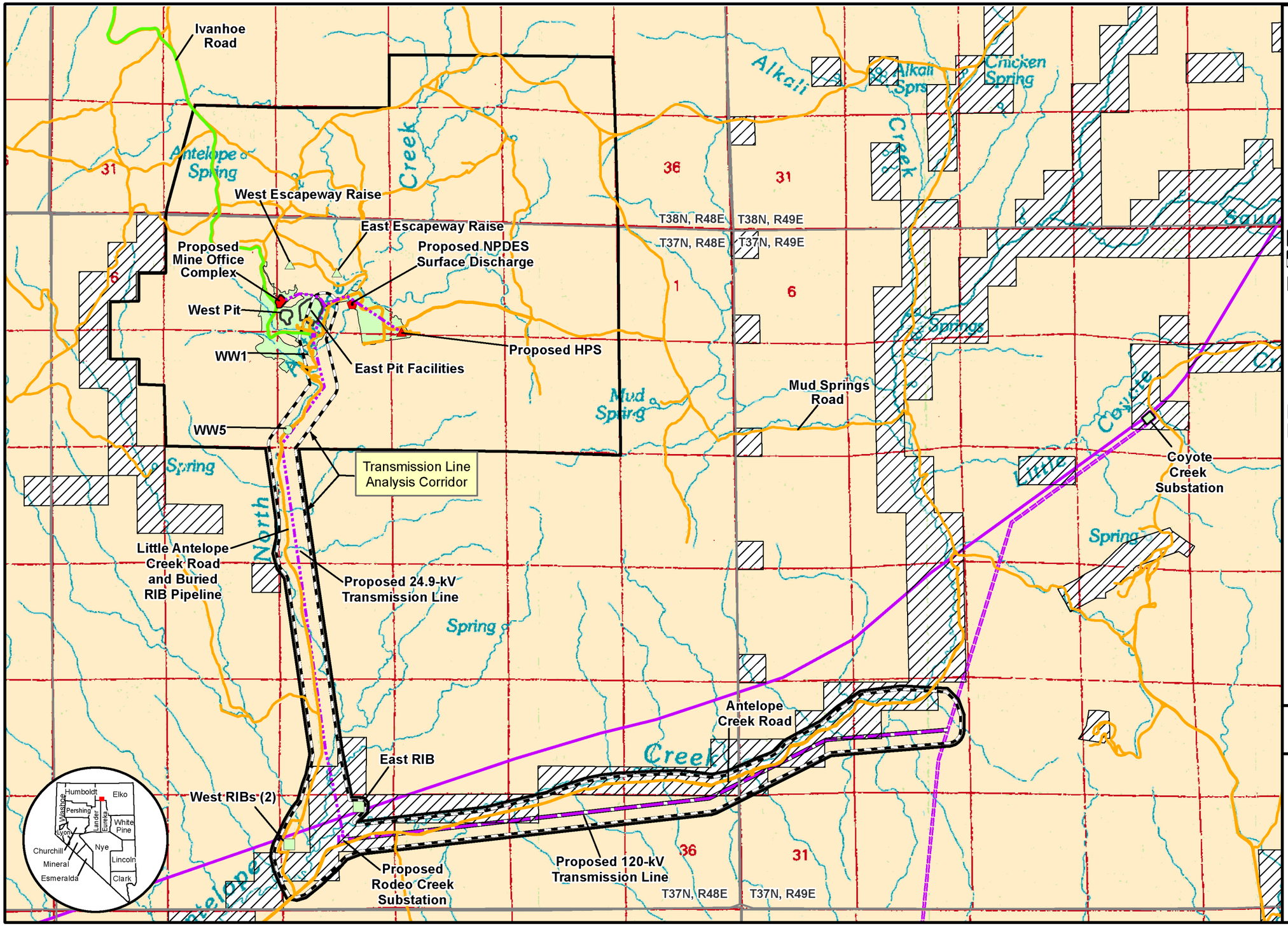


Source: RCG 2009a.

Hollister Underground Mine Project EIS

Figure 1-1

General Location of the Hollister Site and Other Facilities



Legend

Existing/Authorized Surface Disturbance or Facilities

- Mining Disturbance
- Rapid Infiltration Basin (RIB)
- Water Well
- Escapeway Raise
- Road
- Ivanhoe Road
- 345-kV Transmission Line
- 120-kV Transmission Line

Proposed Surface Disturbance or Facilities

- Project Area Boundary
- Transmission Line Analysis Corridor
- Mine Office Complex
- NPDES Surface Discharge
- HPS
- 24.9-kV Transmission Line
- 120-kV Transmission Line

Surface Ownership

- Private Land
- BLM Land

Source: RCG 2009a.

N

0 0.5 1 Miles

Hollister Underground Mine Project EIS

Figure 1-2

Project Area and Surface Ownership

10/19/2011

This EIS describes and analyzes the environmental consequences of the proposed project (Proposed Action) and project alternatives, including the No Action Alternative. The No Action Alternative would allow the current underground and surface exploration to continue under the existing PoOs and Notices as currently approved and acknowledged, respectively.

1.1 Purpose and Need

The BLM is responsible for managing mineral rights and access on federal lands as authorized by the General Mining Law of 1872, as amended. Under the law, persons are entitled to reasonable access to explore for and develop mineral deposits on public domain lands that have not been withdrawn from mineral entry.

In order to use public lands managed by the BLM for locatable mineral exploration and development, RCG must comply with the BLM's Surface Management Regulations (43 CFR 3809), Use and Occupancy Under the Mining Laws Regulations (43 CFR 3715) and other applicable statutes, such as the FLPMA 1976.

The BLM's purpose is to respond to RCG's proposed project PoO Amendment and the right-of-way (ROW) application for the transmission line. RCG is proposing to develop an underground mine on public lands to mine gold and silver, which are locatable minerals, and to construct a transmission line to provide power to this mining operation. In responding to RCG's proposed project, the BLM would determine whether to approve, approve with modifications, or deny the proposed project.

The BLM's need for the action is based on RCG's proposed project. The BLM is required to respond to RCG's proposed project to conduct mining operations for locatable minerals in accordance with the Surface Management Regulations (43 CFR 3809), the Use and Occupancy Under the Mining Laws Regulations (43 CFR 3715) and other applicable laws such as FLPMA and the NEPA. The BLM is required to respond to RCG's proposal to construct a transmission line in accordance with the BLM Right-of-Way Regulations (43 CFR 2800), and respond to the ROW application under Title V of FLPMA for a ROW grant to construct, operate, maintain, and decommission this proposed transmission line. In considering the need for the proposed project, the BLM must determine if the proposed project would create unnecessary or undue degradation to the public lands involved in the action. The NEPA mandates that the BLM evaluate or analyze the impacts of the proposed project and develop alternatives and mitigation, when necessary, to lessen any impacts to the resources.

1.2 Relationship to BLM and Non-BLM Policies, Plans, and Programs

1.2.1 Land Use Plan Conformance

The FLPMA requires that an action under consideration be in conformance with the applicable BLM land use plan, and be consistent with other federal, state, local, and tribal policies.

The BLM has the responsibility and authority to manage the surface and subsurface resources on public lands located within the jurisdiction of the Elko District Office. The BLM has designated lands within the project area as open to entry for locatable minerals. The Proposed Action and alternatives, as described and analyzed in this EIS, conform to the Elko Resource Management Plan, Issue – Minerals Management, Prescription No. 1 (BLM 1987, 1986a).

1.2.2 State and Local Land Use Plans and Policies

The State of Nevada's 1986 Statewide Policy Plan for Public Lands section on Mineral Resources (page 10) states the Goals for Mineral Resources as: 1) recognize that the development of Nevada's mineral resources is desirable and necessary to the nation, the state, and particularly, to the rural counties of the state; 2) retain existing mining areas and promote the expansion of mining operations and areas, while respecting other resource values; and 3) develop policies and regulations that provide for the long-term availability and responsible development of Nevada's mineral resources.

The State of Nevada recognizes that mining is an important contributor to the state's economy and encourages the development of mineral resources. In Nevada Revised Statute 519A.010, the state policy toward mining and reclamation, as defined by the Legislature, is:

"(a) The extraction of minerals by mining is a basic and essential activity making an important contribution to the economy of the State of Nevada;

(b) Proper reclamation of mined land, areas of exploration, and former areas of mining or exploration, is necessary to prevent undesirable land and surface water conditions detrimental to the ecology and to the general health, welfare, safety, and property rights of the residents of this state; and

(c) The success of reclamation efforts in this state is dependent upon cooperation among state and federal agencies."

Elko County, in cooperation with the Nevada Division of State Lands, developed an Elko County Public Lands Policy Plan (Elko County 2008). The Proposed Action is consistent with this plan that recognizes the economic importance of developing mineral resources within the county. Policy 14-1 of this plan states (that it is the objective/goal of this plan to) "…retain existing mining areas and promote the expansion of mining operations and areas not specifically withdrawn."

1.3 Authorizing Actions

Implementing the Proposed Action would require authorizing actions from other federal, state, and local agencies with jurisdiction over certain aspects of the project. **Table 1-1** lists the required permits or approvals that are already in place or would be obtained and the responsible regulatory agencies. RCG is responsible for amending existing permits and applying for and acquiring additional permits, as needed. **Appendix A** provides additional permitting and approval information.

Table 1-1 Major Permits and Approvals

Permit/Approval	Granting Agency
EIS PoO Approval ROW Grant(s) Mineral Material site(s) on public land	United States (U.S.) Department of the Interior, BLM
Explosives Permit	U.S. Department of the Treasury, Bureau of Alcohol, Tobacco, and Firearms; U.S. Office of Homeland Security
Section 106 National Historic Preservation Act Compliance Programmatic Agreement	BLM and State of Nevada Historic Preservation Office
Review of Jurisdictional Determinations for Clean Water Act Section 404 Permitting (and related permits required, if any)	U.S. Army Corps of Engineers
Surface Disturbance Permit Operating Permit to Construct Air Quality Operating Permit	Nevada Department of Conservation and Natural Resources, Nevada Division of Environmental Protection (NDEP)
Water Pollution Control Permit Reclamation Permit	Nevada Department of Conservation and Natural Resources, NDEP, Bureau of Mining Regulation and Reclamation

Table 1-1 Major Permits and Approvals

Permit/Approval	Granting Agency
Permit to Appropriate Water	Nevada Department of Conservation and Natural Resources, Nevada Division of Water Resources
Industrial Artificial Pond Permit	NDOW
NPDES Permit General Storm Water Permit General Permit to Operate and Discharge (large capacity septic systems, if any) Wastewater Holding Tanks Permit (and related permits, if any)	Nevada Department of Conservation and Natural Resources, NDEP, Bureau of Water Pollution Control
Public Drinking Water System Permit	Nevada Department of Conservation and Natural Resources, NDEP, Bureau of Safe Drinking Water
Hazardous Materials Storage Permit	State of Nevada, Fire Marshal Division
County Road Maintenance/Upgrading Building Permits	Elko County
Midas Road Usage in Humboldt County Municipal Solid Waste Disposal	Humboldt County

1.4 Applicable Plans of Operations, Notices, and Environmental Assessments

Previous PoOs, Notices, and EAs associated with the Hollister operations area are described in **Table 1-2**.

Table 1-2 Hollister Operations Area – Plans of Operations, Notices, and Environmental Assessments

Title	Company/Operator	File or EA Number	Date
Transition from Underground Development and Exploration to Full Underground Mine Production: Hollister Mine Project Plan of Operations Amendment (RCG 2012, 2009a)	Rodeo Creek Gold Inc	NVN-076802	June 2009, as revised
Hollister Development Block Project Plan of Operations and EA (BLM 2004a; GBG 2004)	Rodeo Creek Gold Inc (2007-present)	EA#:BLM/EK/PL-2004/002	March 2004
	Hecla Ventures Corporation (2004-2007)	NVN-076802	January 2004
Ivanhoe/USX Project Access Road ROW and EA (RCG 2003)	Rodeo Creek Gold Inc	NVN-077637 EA-NV-010-1988-068	September 2003 September 1988
Craig Notice (BLM 2002a)	Great Basin Gold Inc	NVN-075619	February 2002
Hatter Notice (BLM 1997)	Great Basin Gold Inc	NVN-071201	October 1997

Table 1-2 Hollister Operations Area – Plans of Operations, Notices, and Environmental Assessments

Title	Company/Operator	File or EA Number	Date
Ivanhoe Surface Exploration Plan of Operations and EA (BLM 1999, 1992, 1988a; GBG 1993)	Great Basin Gold Inc (1997-present)	BLM/EK/PL-99/036	August 1999
	Newmont Exploration Limited (1992-1997)	EA-NV-010-88-070 EA-NV-010-88-070(A)	September 1988 February 1992
	Touchstone Resources Company (1988-1992)	NVN-071014	March 1993
Ivanhoe/USX Project Access Road – ROW and Final EA (BLM 1988b; Newmont 1988a)	Newmont Exploration Limited/Newmont Mining Corporation (1992-present)	EA-NV-010-1988-068	September 1988
	Galactic Services, Inc./Touchstone Resources Inc. (1988-1992)	NVN-048616	May 1988
Ivanhoe USX Project/Ivanhoe/Hollister Mine Plan of Operations and EA (BLM 1988c; Newmont 1988b)	Newmont Exploration Limited/Newmont Mining Corporation (1992-present)	EA-NV-010-1988-064	September 1988
	Galactic Services, Inc./ Touchstone Resources Inc. (1988-1992)	NVN-070613	September 1988

1.5 EIS Organization

This EIS follows the CEQ recommended organization (40 CFR Part 1502.10). Chapter 1.0 provides descriptions of the purpose and need. Chapter 2.0 describes the Proposed Action and alternatives, including the No Action Alternative. Chapter 3.0 describes the affected environment; environmental consequences including direct, indirect, and cumulative impacts associated with the Proposed Action and alternatives; possible mitigation to reduce or minimize impacts; irreversible and irretrievable commitment of resources, and any residual adverse effects following the implementation of mitigation. Chapter 4.0 summarizes the public participation and scoping process as well as the consultation and coordination undertaken to prepare the EIS. Chapter 5.0 presents the list of EIS preparers and reviewers. Chapter 6.0 presents the list of references. Copies of supporting documents are on file at the BLM Elko District Office in Elko, Nevada.

1.6 Summary of Key Issues

Key issues identified in the scoping process associated with the Proposed Action are discussed in this EIS. They include:

Cumulative Issues

- Potential cumulative impacts from the existing project and the proposed project relative to contamination of surface flows, rainfall, and snowmelt that pass through WRSFs, ore stockpiles, and mine tailings.
- Potential cumulative impacts from the existing activities and the proposed project to all discharges to surface water.
- Potential cumulative impacts to the region's ecosystem.
- Potential cumulative impacts associated with additional aboveground disturbance, adverse affects to livestock grazing, and increased traffic from the proposed project and future planned projects.
- Potential cumulative impacts to greater sage-grouse by the proposed project and the Ruby Pipeline.
- The likely fate and transport of mercury air emissions from the proposed project and the cumulative amount of mercury that is emitted annually from gold mines in northern Nevada.

Air Resources

- Potential impacts to air quality, including particulate matter with an aerodynamic diameter of 2.5 microns or less and particulate matter with an aerodynamic diameter of 10 microns or less.
- Potential impacts associated with mercury emissions resulting from third-party off-site ore processing.
- Potential impacts from sulfur oxides, nitrogen oxides, ozone, carbon dioxides, and other gases associated with the third-party owned mill and roaster.
- Potential impacts to the National Ambient Air Quality Standards and Prevention of Significant Deterioration increments from the proposed project emissions.

Wetlands and Riparian Resources

- Potential loss of wetland areas or springs from changes in the water tables caused by groundwater pumping.
- Potential loss of riparian areas and effects to wildlife migratory routes.

Water Resources

- Potential impacts to already impaired streams.
- Potential contamination of surface flows, rainfall, and/or snowmelt that pass through waste rock storage facilities, ore stockpiles, or other mine facilities.
- Potential direct, indirect, and cumulative impacts to surface water flow, water supply wells, wetlands, springs, and seeps as a result of groundwater pumping for the project.
- Potential impacts of subsurface water through underground workings.

- Potential impacts (geomorphic flow, water quality, biological, and cultural) to Little Antelope Creek and downstream segments of Antelope and Rock creeks from the proposed mine groundwater pumping discharge.
- Groundwater withdrawals for mining operations and potential impacts of groundwater pumping on other resources.

Biological Resources

- Potential exposure of migratory waterfowl to toxic waters.
- Potential impacts to mule deer migration corridors.
- Potential impacts to sage-grouse brooding areas, lek sites, and nesting areas.
- Potential impacts to the sagebrush scrub habitat that may be used by sensitive species such as greater sage-grouse and pygmy rabbits.
- Potential impacts to Pacific chorus frogs and Columbia spotted frogs that may inhabit the riparian areas.
- Potential impacts to raptor nests and migratory bird species.
- Potential impacts to nongame mammals which are likely to be present in the proposed project area.
- Potential direct, indirect, and cumulative impacts to vegetation, wildlife, and other groundwater-dependent resources resulting from proposed project groundwater pumping.

Socioeconomics

- Potential social and economic impacts to affected communities associated with taxes and employment at the mine of approximately 175 workers for an additional 20 years, should the mine not be permitted.
- Potential impacts to tax revenues for local and county governments.

Noise

- Potential noise impacts from expansion of mining activities and increase in traffic due to haulage of ore to off-site mills for processing.

Visual Resources

- Potential visual impacts related to proposed project facilities, including installation of a new transmission line and substation.

Cultural Resources/Native American Traditional Values

- Potential impacts to chert locations; chert is used for medicinal purposes.
- Potential impacts to sacred springs as a result of groundwater pumping.
- Potential impacts from increased access to the Tosawihi Quarries area, which is a spiritual area for Native Americans.
- Potential impacts to the Tosawihi Quarry Archaeological District and nearby important cultural sites, including the Tosawihi Quarry Traditional Cultural Properties, which include Big Butte, Velvet Canyon, and Antelope, Ivanhoe, and Buttercup springs.
- Potential impacts to cultural resources and how they would be protected.